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ZHAO, WEI	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,042	SWOBODA ET AL.	
	Examiner	Art Unit	
	WEI ZHAO	2475	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This communication is considered fully responsive to the Amendment filed on January 18, 2010.

Claim Objections

2. Claims 1-22 are objected to under 37 CFR 1.75(c) because of the following informalities:

Regarding claim 1, it is suggested to change the term "the transmission" in line 1 to --- transmission ---.

Regarding claim 2, it is suggested to change the term "the reception" in line 2 to --- reception ---; the term " the event" in line 2 to --- an event ---.

Regarding claim 10, the term "a data bus" in line 2 seems to refer back to the beginning term "The serial data bus" recited in claim 9. If this is true, it is suggested to change "a data bus" to --- the serial data bus ---.

Claims 3-9 and 11-17 are objected to since they all depend from claim 1.

Regarding claim 18, it is suggested to change the terms "the event-driven transmission" in line 1 to --- an event-driven transmission ---; "the broadcast principle" in line 2 to --- a broadcast principle ---. The term "a transmission/reception head" in line 11

seems to refer back to the term "a transmission/reception head" in line 5. If this is true, it is suggested to change "a transmission/reception head" to --- the transmission/reception head ---.

Claims 19 and 22 are objected to since they both depend from claim 18.

Regarding claim 20, it is objected to since claim 20 depends from claim 21, which does not refer to a previous claim.

Claim 21 is objected to since it depends from claim 20.

3. Claims 10-17 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding claim 10, it claims the limitation of "A motion system having a first part and second part, which is arranged mobile relative to the first part, wherein subscribers of a data bus according to Claim 9 ..." Claim 10 is in an improper dependent form for failing to further limit the subject matter as claim 9 claims "The serial data bus." The same rational applies to claims 11-17.

4. Claim 11 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n).

Regarding claim 11, it claims the limitation of "The motion system according to Claim 10 and the limitation of "a data bus according to Claim 9." So, claim 11 is in an improper form for failing to refer to other claims in the alternative only.

Note: Regarding claim 11, the phrase **"adapted for"** in line 1 is not positively claimed language. Therefore, the limitation after the phrase "adapted for" is not considered the claimed limitation. It is suggested to remove the phrase "adapted for", though the prior art teaches the limitation.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4,6-10 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bohrer et al (US-PAT-NO:7009995) in view of Lohr et al (US-PAT-NO:7277675).

Regarding claim1, Bohrer et al disclose a serial data bus having a data line for the transmission of electrical signals representing bit states and having a plurality of multi-master subscribers between which messages can be exchanged via the data line in an event-driven manner according to the broadcast principle (column: 1 lines 24-39).

Bohrer et al. teach all the subject matter with the exception of implementing the serial data bus comprising: at least two subscribers each including a transmission/reception head which can be inductively coupled to the data line and via which electrical signals can be tapped contactlessly from the data line and transmitted onto it, and in that an amplifier which receives electrical signals that have been transmitted inductively onto the data line by the at least two subscribers, and couples them back into the data line after their amplification, is DC-connected to the data line. Lohr et al from the same or similar field of endeavor teach discloses the serial data bus comprising: at least two subscribers each including a transmission/reception head which can be inductively coupled to the data line and via which electrical signals (FIG. 4 shows an exemplary array with series resonance circuits. In the transmitter, an AC voltage source with an integrated control element (1) supplies the inductive coupling elements that consist each of a primary winding (2, 3, 4) and a secondary winding (22, 23, 24). Here, several primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in loose mechanical

contact with the transmitters see coln:4 lines 53-60) can be tapped contactlessly from the data line and transmitted onto it, and in that an amplifier which receives electrical signals that have been transmitted inductively onto the data line by the at least two subscribers (the aspect that the inductive transmission elements are completed by appropriate capacitances connected in series, to form parallel resonance circuits. This completion may be optionally on the primary side, the secondary side or even on both sides of the inductive coupling elements see coln:2 lines 37-42) and couples them back into the data line after their amplification, is DC-connected to the data line (In that array several primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in loose mechanical contact with the transmitters. In order to achieve a circuit capable of resonating in parallel, the inductance is supplemented optionally on the primary winding and/or on the secondary winding to form a parallel resonance circuit with appropriate capacitances see coln:4 lines 20-27) . Thus it would have been obvious to one of ordinary skill in the art to implement the method of Lohr et al in the system of Bohrer et al .The method of Bohrer et al can be implemented on any type of method, at least two subscribers each including a transmission/reception head which can be inductively coupled to the data line and via which electrical signals can be tapped contactlessly from the data line and transmitted onto it, and in that an amplifier which receives electrical signals that have been transmitted inductively onto the data line by the at least two subscribers , and couples them back into the data line after their amplification, is DC-connected to the

data line which is taught by Lohr et al with a motivation in order to provide contact less transmission of electrical signals.

Regarding claim2, note that Bohrer discloses the serial data bus, characterized in that the messages contain priority bits by the reception of which (the identifier also establishes the priorities of the message. The priorities are issued in the system design through corresponding binary values and are not dynamically changeable. The identifier having the lowest binary number has the highest priority. Conflict in bus access is resolved using bit-by-bit arbitration regarding the respective identifiers, in that each station see col: 1 lines 32-39), in the event of simultaneous message transmissions by a plurality of subscribers subscriber can determine whether it has priority to transmit data bits by means of a comparison with priority bits which it itself transmits (A comparison with container messages CT of dispatcher station 2 in accordance with FIG. 7 indicates that the message having address 0/1 may not be read by transceiver station 4, i.e., this message having address 0/1 is transmitted only with the assistance of interface circuit 50 of this interface module 18 to the next user of this serial ring bus see co1:9 lines 37-42).

Regarding claim3, note that Bohrer discloses the serial bus (a serial bus system that is multi-master capable see co1:1 line 24), characterized in that the subscriber not have priority to transmit data bits when it receives a signal that represents a dominant logical bit state and it approximately simultaneously transmits a signal that represents a recessive logical bit state (In this competition among stations, all of the "losers" automatically become receivers of the message having the highest priority and only

make the attempt once again to transmit when the bus becomes free. Upon the acceptance check occurring all receiver stations in the CAN network, after correctly receiving the message based on the identifier, determine whether the data received are relevant for it or not (selecting)see co1:1 lines 39-46).

Regarding claim4, note that Bohrer discloses the serial data bus, wherein the signal representing the dominant bit state is a current pulse and the signal representing the recessive bit state is the absence of a current pulse (For the synchronization of the decentralized, lower-level closed-loop control circuits in converters 52 of stations 2, 4, and 6, the bus cycle time must have a defined relationship with respect to the time slices of the individual closed-loop controllers. For the time slices of converter 52, the following determination applies: current control in time slice T.sub.0 speed control in time slice 2T.sub.0 position control in time slice 4T.sub.0, Time slice T.sub.0 is equal to the reciprocal value of the pulse frequency and is set in converter 52 by the selection of pulse frequency see col: 8 line 65-67 and col: 9 lines 1-9).

Regarding claim 6, note that Bohrer discloses the serial data bus, wherein message priority can be determined by the logic unit (the identifier also establishes the priorities of the message. The priorities are issued in the system design through corresponding binary values and are not dynamically changeable. The identifier having the lowest binary number has the highest priority. Conflict in bus access is resolved using bit-by-bit arbitration regarding the respective identifiers, in that each station see col: 1 lines 32-39).

Regarding claim 7, note that Bohrer the serial data bus, wherein after reception of the electrical signals from one of the at least two subscribers the amplified signals can be transmitted onto the data line by the amplifier within approximately 25-50% of a cycle length which lies at least between two signals transmitted onto the data line by one of the at least two subscribers (The length of each transmission segment in plastic optical fibers can be as much as 60 m, and in the glass optical fiber up to 250 m. The maximum number of users for each fiber-optic ring is 254. In addition, repeat amplifiers are arranged in the slaves so that signal distortions arising as a result of the optical transmission cannot accumulate see col: 2 lines 20-27).

Regarding claim 8, note that Bohrer disclose the serial data bus, wherein the messages have the format established in the CAN standard (The number of users in one CAN bus system is theoretically limited by the number of available identifiers (2032 in standard format and 0.510.sup.9 in expanded format) see co1:1 lines 56-65). Regarding claim9 Lohr teach the serial data bus, wherein one of the at least two subscribers is arranged so that it can travel along the data line (a magnetic path of the inductive coupling element, which is not yet used for the transmission of energy, is utilized for the transmission of further information. This may be the exterior surface of the core, for example, with the magnetic flux then persisting via the environment of the core through the air. In the event of a multi-branch core, the magnetic flux may take place via the two outside branches or further branches see coln:2 lines 51-58). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Lohr et al in the system of Bohrer et al .The method of Bohrer et al can be implemented

on any type of method, wherein one of the at least two subscribers is arranged so that it can travel along the data line which is taught by Lohr et al with a motivation in order to provide contact less transmission of electrical signals.

Regarding claim10, Lohr et al teach a motion system having a first part and a second part, which is arranged mobile relative to the first part, wherein subscribers of a data bus are arranged statically on the two parts (A pc board containing conductor structures (60, 61) for capacitive signal transmission is disposed on each side between the two halves of the core. These pc boards are spaced from each other by a small distance so that electrical signals can be transmitted between the transmitter side and the receiver side due to the high capacitance so created see coln:4 lines 44-50) Thus it would have been obvious to one of ordinary skill in the art to implement the method of Lohr et al in the system of Bohrer et al .The method of Bohrer et al can be implemented on any type of method, a first part and a second part, which is arranged mobile relative to the first part, wherein subscribers of a data bus are arranged statically on the two parts which is taught by Lohr et al with a motivation in order to provide contact less transmission of electrical signals.

Regarding claim18, Bohrer et al discloses a serial method for the event-driven transmission of messages between a plurality of multi-master subscribers according to the broadcast principle via a data bus (a serial bus system that is multi-master capable, i.e., a plurality of CAN nodes can simultaneously request the bus see co1:1 lines 24-26). Bohrer et al does not discloses the method comprising the steps of: contactless transmission of an electrical signal by a subscriber onto a data line of the data bus via a

transmission/reception head, coupled inductively to the data line, of the subscriber; reception of the electrical signal attenuated by the inductive transmission by an amplifier DC-connected to the data line; amplification of the received signal in the amplifier; coupling of the amplified signal onto the data line; and, reception of the amplified signal transmitted onto the data line by a transmission/reception head, coupled inductively to the data line, of another subscriber. Lohr et al from the same or similar field of endeavor teach the method comprising the steps of: contactless transmission of an electrical signal by a subscriber onto a data line of the data bus via a transmission/reception head, coupled inductively to the data line, of the subscriber (FIG. 4 shows an exemplary array with series resonance circuits. In the transmitter, an AC voltage source with an integrated control element (1) supplies the inductive coupling elements that consist each of a primary winding (2, 3, 4) and a secondary winding (22, 23, 24). Here, several primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in loose mechanical contact with the transmitters see coln:4 lines 53-60) reception of the electrical signal attenuated by the inductive transmission by an amplifier DC-connected to the data line; amplification of the received signal in the amplifier; coupling of the amplified signal onto the data line (FIG. 5 illustrates a typical array of a circuitry on the secondary side in correspondence with the present invention. Here, the secondary winding (22) serves to couple out the electrical signals. The corresponding parallel resonance capacitance--which is illustrated here for the case of parallel resonance as an example--is realized with the capacitor (32).see coln:5 lines 1-7); and reception of the amplified signal transmitted

onto the data line by a transmission/reception head, coupled inductively to the data line, of another subscriber (In that array several primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in loose mechanical contact with the transmitters. In order to achieve a circuit capable of resonating in parallel, the inductance is supplemented optionally on the primary winding and/or on the secondary winding to form a parallel resonance circuit with appropriate capacitances see coln:4 lines 20-27). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Lohr et al in the system of Bohrer et al .The method of Bohrer et al can be implemented on any type of method taught by Lohr et al with a motivation in order to provide contact less transmission of electrical signals.

Regarding claim 19, note that Bohrer discloses the method, such that when a subscriber simultaneously transmits a message and receives a message (the identifier also establishes the priorities of the message. The priorities are issued in the system design through corresponding binary values and are not dynamically changeable. The identifier having the lowest binary number has the highest priority. Conflict in bus access is resolved using bit-by-bit arbitration regarding the respective identifiers, in that each station see col: 1 lines 32-39), it determines whether it has the priority to transmit data bits by means of a comparison of received priority bits and self- transmitted priority bits transmits (A comparison with container messages CT of dispatcher station 2 in accordance with FIG. 7 indicates that the message having address 0/1 may not be read by transceiver station 4, i.e., this message having address 0/1 is transmitted only with

the assistance of interface circuit 50 of this interface module 18 to the next user of this serial ring bus see co1:9 lines 37- 42).

Regarding claim 20, note that Bohrer disclose the method, such that a subscriber does not have the priority (Therefore, CAN permits the realization of need-dependent bus access, proceeding, on the basis of the bit-by-bit arbitration, in a non-destructive manner through message priority. A synchronization mechanism is not supported by the CAN and the data transmission speed is too low for a process in which a plurality of sequences of motions proceed synchronously, one after the other see coln: 2 lines 55-65) to transmit data bits when it receives a signal that represents a dominant logical bit state and it approximately simultaneously transmits a signal that represents a recessive logical bit state. (the identifier also establishes the priorities of the message. The priorities are issued in the system design through corresponding binary values and are not dynamically changeable. The identifier having the lowest binary number has the highest priority. Conflict in bus access is resolved using bit-by-bit arbitration regarding the respective identifiers, in that each station see col: 1 lines 32-39).

Regarding claim 21, note that Bohrer disclose The method such that the signal representing the dominant bit state is a current pulse and the signal representing the recessive bit state is the absence of a current pulse (repeat amplifiers are arranged in the slaves so that signal distortions arising as a result of the optical transmission cannot accumulate. The active signal conditioning and clock-pulse regeneration is achieved with the assistance of phase-locking loops. By using fillers and bit stuffing, it is assured that a sufficient quantity of signal edges is contained in the data stream. As a result, it

is made possible for the phase-locking loops always to remain "locked in place," i.e., bit-synchronous see coln:2 lines 25-33).

7. Claims 5 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bohrer et al (US-PAT-NO:7009995) in view of Lohr et al (US-PAT-NO:7277675) as applied in claims 1 or 10 above, and further in view of Modery et al (US-PAT-NO:4766547).

Regarding claim 5, Lohr et al discloses the serial data bus, wherein the transmission/reception head comprises: a transmission coil; a reception coil; a transmission module by which electrical signals, which can be applied to the transmission coil, can be generated from digital information (coln: 4 lines 53-60); a reception module by which digital information can be generated from electrical signals that can be tapped by the reception coil; and, a logic unit, connected to the transmission module and the reception module, for collating and evaluating messages from digital information received by the reception module and for generating digital information for the transmission module (coln: 4 lines 53-60). Modery et al from the same or similar endeavor teach can be generated from digital information; a reception module by which digital information can be generated from electrical signals that can be tapped by the reception coil (coln:12 lines 63-67 and coln:13 lines 1-4) and, a logic unit, connected to the transmission module and the reception module, for collating and evaluating messages from digital information received by the reception module and for generating

digital information for the transmission module (coln: 14 lines 53-61). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding 11, Bohrer et al and Lohr et al disclose the motion system (coln:4 lines 44-50). Bohrer et al and Lohr et al disclose the motion system adapted for design as a track-bound transport system having a track and a plurality of vehicles that travel along the track, the transport system comprising, for communication between the vehicles, a data bus whose data line is arranged along the track of the transport system and whose subscribers are the vehicles. Modery et al from the same or similar field or endeavor teach the motion system adapted for design as a track-bound transport system having a track and a plurality of vehicles that travel along the track (a conveyor system with improved computer and communications control to constantly monitor the position of vehicles within the system and to deliver vehicles to desired destinations. Specifically, the system includes a conveyor track network, a communication bus extending along the track network, a plurality of self-propelled vehicles confined to the network and coupled to the communication bus, and a computer control system coupled to the communication bus see coln1 lines 60-67); the transport system comprising, for communication between the vehicles, a data bus whose data line is arranged along the track of the transport system and whose subscribers are the vehicles (The vehicles are

capable of identifying their location within the network, and the computer is capable of polling the individual vehicles to acquire this location information. The computer makes routing decisions (1) to control switching stations and thereby deliver vehicles to their desired destinations and (2) to prevent collisions between vehicles see coln:2 lines 1-7). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method the motion system adapted for design as a track-bound transport system having a track and a plurality of vehicles that travel along the track the transport system comprising, for communication between the vehicles, a data bus whose data line is arranged along the track of the transport system and whose subscribers are the vehicles which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding claim12, Modery et al teach the motion system, wherein at least one vehicle comprises a vehicle control connected to the transmission/reception head (selected vehicles include one or more sensors for measuring one or more desired characteristics (e.g. weight, temperature, or pressure) of the material transported by the vehicle and a system for communicating this information to a central computer see coln:2 lines 29-34). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method the

motion system, wherein at least one vehicle comprises a vehicle control connected to the transmission/reception head which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding claim13, Modery et al teach the motion system, wherein the amplifier is connected to a control unit for controlling the vehicles along the data bus (selected vehicles include one or more sensors for measuring one or more desired characteristics (e.g. weight, temperature, or pressure) of the material transported by the vehicle and a system for communicating this information to a central computer see coln:2 lines 29-34). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method wherein the amplifier is connected to a control unit for controlling the vehicles along the data bus which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding claim14, note that Bohrer et al the motion system, wherein the amplifier is connected to the control unit via a CAN bus (The number of users in one CAN bus system is theoretically limited by the number of available identifiers (2032 in standard format and 0.510.sup.9 in expanded format) see co1:1 lines 56-65).

Regarding claim15, Modery et al teach the motion system being subdivided into a plurality of segments which respectively comprise a data bus having a control unit, and in that the control unit for the individual segments is connected to a superordinate central control (selected vehicles include one or more sensors for measuring one or more desired characteristics (e.g. weight, temperature, or pressure) of the material transported by the vehicle and a system for communicating this information to a central computer see coln:2 lines 29-34). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method the motion system being subdivided into a plurality of segments which respectively comprise a data bus having a control unit, and in that the control unit for the individual segments is connected to a superordinate central control which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding claim16, Modery et al teach The motion system, wherein the track for the vehicles extends over a plurality of segments so that vehicles can travel over segment boundaries (The vehicles are capable of identifying their location within the network, and the computer is capable of polling the individual vehicles to acquire this location information. The computer makes routing decisions (1) to control switching stations and thereby deliver vehicles to their desired destinations and (2) to prevent collisions between vehicles see coln:2 lines 4-7) Thus it would have been obvious to

one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method the motion system, wherein the track for the vehicles extends over a plurality of segments so that vehicles can travel over segment boundaries which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding claim17, Modery et al teach the motion system being designed as an overhead conveyor system for transporting objects (a conveyor system with improved computer and communications control to constantly monitor the position of vehicles within the system and to deliver vehicles to desired destinations. Specifically, the system includes a conveyor track network, a communication bus extending along the track network, a plurality of self-propelled vehicles confined to the network and coupled to the communication bus, and a computer control system coupled to the communication bus see coln1 lines 60-67) . Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method the motion system being designed as an overhead conveyor system for transporting objects which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Response to Remarks/Arguments

8. Claim Rejections: Applicants' arguments filed January 18, 2010 have been fully considered but they are not persuasive.

On pages 6-7 of the Response with respects to claim 1, Applicants assert the prior art doesn't teach "a serial data bus having a data line for the transmission of electrical signals representing bit states and having a plurality of multi-master subscribers between which messages can be exchanged via the data line in an event-driven manner according to the broadcast principle, the serial data bus comprising: at least two subscribers each including a transmission/reception head which can be inductively coupled to the data line and via which electrical signals can be tapped contactlessly from the data line and transmitted onto it, and an amplifier which receives electrical signals that have been transmitted inductively onto the data line by the at least two subscribers, and couples them back into the data line after their amplification, is DC-connected to the data line."

The prior art teaches that Controller Area Network (CAN) is **a serial bus system that is multi-master capable, i.e., a plurality of CAN nodes can simultaneously request the bus.** In CAN data transmission, according to the publication "Controller Area Network--a Serial Bus System Not Only for Motor Vehicles" of the International Association "CAN in Automation (CiA) e.V.," no stations on the bus are addressed, but rather the content of the message is designated by a network-wide unambiguous identifier. In addition to recognizing the contents, the identifier also establishes the

priorities of the message. **The priorities are issued in the system design through corresponding binary values** and are not dynamically changeable. The identifier having the lowest binary number has the highest priority. Conflict in bus access is resolved using bit-by-bit arbitration regarding the respective identifiers, in that each station, bit for bit, observes the bus level (column [1] lines 24-39, Bohrer et al.). The prior art further teach that FIG. 4 shows an exemplary array with series resonance circuits. In the transmitter, an AC voltage source with an integrated control element (1) supplies the **inductive coupling elements that consist each of a primary winding (2, 3, 4) and a secondary winding (22, 23, 24).** Here, **several primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in loose mechanical contact with the transmitters (Examiner's Notes: this feature has the same function of "at least two subscribers each including a transmission/reception head which can be inductively coupled to the data line and via which electrical signals can be tapped contactlessly from the data line and transmitted onto it" as described in the current application)** (column [4] lines 53-60, Lohr et al.). Another embodiment of the invention consists in the aspect that the inductive transmission elements are completed by appropriate capacitances connected in series, to form parallel resonance circuits. This completion may be optionally on the primary side, **the secondary side or even on both sides of the inductive coupling elements** (column [2] lines 37-42, Lohr et al.). In that array several **primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in loose**

mechanical contact with the transmitters. In order to achieve a circuit capable of resonating in parallel, the inductance is supplemented optionally on the primary winding and/or on the secondary winding to form a parallel resonance circuit with appropriate capacitances. The capacitance elements on the primary side (12, 13, 14) are associated with the transmitter whereas the secondary side capacitance elements (32, 33, 34) associated with a respective receiver (column [4] lines 20-31, Lohr et al.).

Based on the fact, Examiner respectfully disagrees that the prior art cited does not teach the independent claim 1 as mentioned by applicants. The elements of independent claim 18 that Applicants argue are similar to claim 1's, so the cited passages also teach claim 18. Furthermore, the cited passages teach dependent claims 2-17 and 19-22 as well.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WEI ZHAO whose telephone number is (571)270-5672. The examiner can normally be reached on Monday-Thursday, 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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